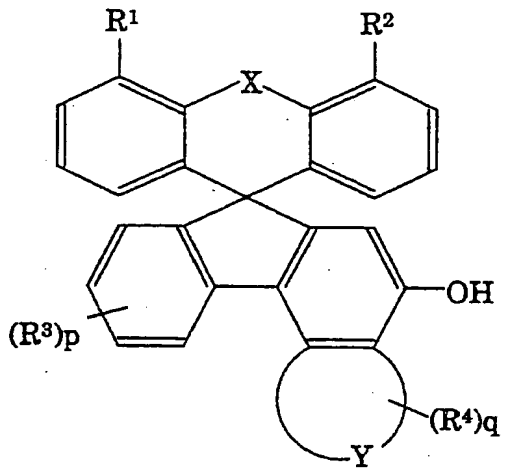
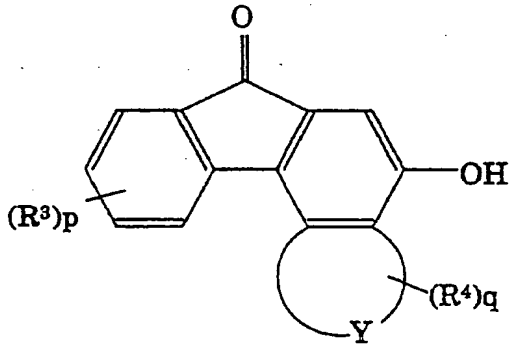
CLAIMS:

1. A method of producing a spirofluorenol compound represented by the following formula (1),



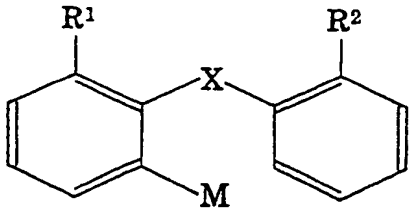
(1)

by protecting a hydroxyl group bonded to a fluorenone compound represented by the following formula (2),



(2)

with a protecting group which is a substituted silyl group in which the sum of carbon atoms of substituents bonded to a silicon atom is 5 to 12, then, reacting the fluorenone compound with an organometal compound represented by the following formula (3),



(3)

wherein M is Li, MgCl, MgBr, MgI or CuLi, to thereby obtain a hydroxy-arylfluorenol of which the hydroxyl group is protected with said protecting group, and transforming the obtained hydroxy-arylfluorenol into a spiro form and removing the protection therefrom, wherein in the above formulas (1) to (3):

X is either a single bond or a divalent group selected from the following group A;

Y is a group forming an aromatic hydrocarbon cyclic group or an unsaturated heterocyclic group together with two carbon atoms of a benzo ring;

when X is a single bond, R^1 and R^2 are, respectively, hydrogen atoms or monovalent groups selected from the following group B, or are bonded together to form a divalent group selected from the following group A (except, -Z- and $-CR^5R^6-$);

when X is a group selected from the group A, R^1 and R^2 are, respectively, hydrogen atoms or monovalent groups selected from the following group B;

R^3 and R^4 are, respectively, hydrogen atoms or monovalent groups selected from the following group B; and

p and q are, independently from each other, integers of 0 to 3;

group A:

$-Z-$, $-(CR^5R^6)_n-$, $-(CR^5R^6)_m-Z-$, $-Z-(CR^5R^6)_l-Z-$, $-(CR^5R^6)_a-Z-(CR^5R^6)_b-$, $-(CR^5=CR^6)_k-$, and $CR^5=N-$

wherein -Z- is -O-, -S- or $-NR^5-$, R^5 and R^6 are,

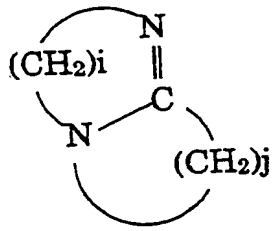
independently from each other, hydrogen atoms, or monovalent groups selected from the following group B, wherein when there are a plurality of -Z-, R^5 or R^6 in one group, the plurality of -Z-, R^5 or R^6 may be different from each other, and a, b, k and l are, independently from each other, integers of 1 to 4, and m and n are, independently from each other, integers of 1 to 6;

group B:

alkyl group, aralkyl group, substituted or unsubstituted aryl group, hydroxy group, alkoxy group, aralkoxy group, amino group, monosubstituted amino group, disubstituted amino group, cyano group, nitro group, halogen atom, trufluoromethyl group, substituted or unsubstituted heterocyclic group having a bond on a carbon atom or on a nitrogen atom, and substituted or unsubstituted condensed heterocyclic group to which aromatic hydrocarbon ring or hetero ring is condensed and having a bond on a carbon atom or on a nitrogen atom.

2. A production method according to claim 1, wherein when the fluorenone compound represented by the above formula (2) has an amino group or a monosubstituted amino group, said hydroxyl group as well as said amino group or said monosubstituted amino group are protected with said protecting groups.

3. A production method according to claim 1, wherein the protection by using said substituted silyl group is conducted in the presence of a compound represented by the following formula (4),



(4)

wherein i is an integer of 2 to 4, and j is an integer of 3 to 6.

4. A production method according to claim 1, wherein the protection is removed from the spirofluorenol by the reaction with a quaternary ammonium fluoride or with a fluoride of an alkali metal, said spirofluorenol being obtained by transforming the hydroxy-arylfluorenol protected by said protecting group into a spiro form.

5. A production method according to claim 3, wherein the protection is removed from the spirofluorenol by the reaction with an alcohol or with water in the presence of the compound represented by the above formula (4), said spirofluorenol being obtained by transforming the hydroxy-arylfluorenol protected by said protecting group into a spiro form.

6. A production method according to claim 1, wherein the hydroxy-arylfluorenol protected by said protection group is transformed into a spiro form and from which the protection is removed in one step by being reacted with an acid in an acetonitrile solvent.

7. A production method according to claim 6, wherein, as the acid, there is used at least the one compound selected from the group consisting of boron trifluoride ether complex, magnesium bromide, paratoluenesulfonic acid, aluminum chloride and trifluoroacetic acid.